

WHAT IS CLAIMED IS:

1. Hinge structure including a universal adapter arranged in operable combination with and toward one end of and for allowing said hinge structure to be pivotally connected to different stationary brackets having differing pivot axes, with said adapter being configured to define multiple openings disposed in spaced, generally parallel relation relative to each other.
2. The hinge structure according to Claim 1, wherein said adapter defines a first opening and a second opening, with said first and second openings being offset relative to each other.
3. The hinge structure according to Claim 2, wherein said adapter is configured such that an axis defined by said first opening is positioned both vertically and in laterally offset relation from an axis defined by said second opening.
4. The hinge structure according to Claim 2, wherein each opening defined by said adapter has a closed and generally circular marginal edge, and with the closed and generally circular marginal edge of said first opening being of a different size than the closed and generally circular marginal edge of said second opening.
5. The hinge structure according to Claim 1, wherein said universal adapter comprises one of a plurality of apertured pieces, with each apertured piece being releasably engageable with said hinge structure in a manner inhibiting rotation of said apertured piece relative to said hinge structure.

6. The hinge structure according to Claim 1, wherein said universal adapter comprises one of a plurality of modular inserts, and with an end portion of said hinge structure being configured to releasably accommodate any one of said plurality of modular inserts in non-rotatable relation relative to said hinge structure.

7. The hinge structure according to Claim 6, wherein another end portion of said hinge structure has a generally planar configuration to facilitate attachment of said hinge structure to a railcar hatch cover.

8. Hinge structure for pivotally connecting a hatch cover to a railcar, said hinge structure including a first end configured for attachment to the hatch cover, and a universal adapter arranged toward a second end of said hinge structure, said universal adapter defining multiple openings disposed in spaced, generally parallel relation relative to each other whereby permitting pivotal attachment of said hinge structure and thereby said hatch cover to different brackets on the railcar having hinge pins arranged at different locations relative to coaming on the railcar.

9. The hinge structure according to Claim 8, wherein said adapter defines a first opening and a second opening, with said first and second openings being offset relative to each other.

10. The hinge structure according to Claim 9, wherein said adapter is configured such that an axis defined by said first opening is positioned vertically and in laterally offset relation from an axis defined by said second opening.

11. The hinge structure according to Claim 9, wherein each opening defined by said adapter is configured with a closed and generally circular marginal edge, and with the closed and generally circular marginal edge of said first opening having a different size than the closed and generally circular marginal edge of said second opening.

12. The hinge structure according to Claim 8, wherein said universal adapter comprises an apertured piece that is interchangeable with other apertured pieces, with each apertured piece defining a series of openings arranged in different patterns relative to each other, and wherein each apertured piece is releasably engageable with said hinge structure in a manner inhibiting relative rotation therebetween.

13. The hinge structure according to Claim 12, wherein each apertured piece is configured as a modular insert which is adapted to be releasably accommodated within a socket defined by and toward a second end of said hinge structure.

14. The hinge structure according to Claim 12, wherein each modular insert and said socket defined by said hinge structure are configured to inhibit relative rotational movement therebetween.

15. The hinge structure according to Claim 12, wherein each opening defined by the apertured pieces is configured with a closed, generally circular marginal edge, and wherein the openings in different apertured pieces are disposed in different patterns relative to each other.

16. The hinge structure according to Claim 12, wherein each opening defined by the apertured pieces is configured with a closed, generally circular marginal edge, and wherein a distance across the marginal edge defining the majority of openings in the apertured pieces are of differing sizes relative to each other.

17. A hinge system for pivotally connecting a first member to a second member about a pivot axis, said hinge system including a first hinge piece connected to one of said first and second members, with said first hinge piece defining a reference plane, a second hinge piece connected to the other of said first and second members, with said second hinge piece accommodating a hinge pin defining said pivot axis between said first and second members, and a universal adapter releasably arranged on one of said first and second pieces, with said universal adapter defining multiple sleeve-like openings, each sized to accommodate a lengthwise portion of said hinge pin for rotation about a fixed axis, and wherein the multiple sleeve-like openings in said adapter are disposed at different distances relative to the reference plane on said first hinge piece such that differing second hinge pieces having said hinge pin disposed at differing distances from the reference plane of said first hinge piece are pivotally securable to the first hinge piece by moving said hinge pin to that sleeve-like opening in said universal adapter closely aligned to the axis of said hinge pin accommodated by said second hinge piece.

18. The hinge system according to Claim 17, wherein said universal adapter defines a first sleeve-like opening and a second sleeve-like opening, with said first and second sleeve-like openings being offset relative to each other.

19. The hinge system according to Claim 18, wherein said adapter is configured such that an axis defined by said first sleeve-like opening is positioned upwardly and in laterally offset relation from an axis defined by said second sleeve like opening.

20. The hinge system according to Claim 18, wherein each sleeve-like opening defined by said adapter has a closed and generally circular marginal edge, and with the closed and generally circular marginal edge of said first sleeve-like opening being of a different size than the closed and generally circular marginal edge of said second sleeve-like opening.

21. The hinge system according to Claim 17, wherein said universal adapter comprises one of a set of apertured pieces that are each releasably engageable with said one of said first and second pieces in a manner inhibiting relative rotation therebetween.

22. The hinge system according to Claim 17, wherein said universal adapter comprises one of a plurality of modular inserts, and wherein a first end portion of one of said first and second pieces is configured to releasably accommodate any one of said plurality of modular inserts in non-rotatable relation relative to each other.

23. The hinge system according to Claim 22, wherein each modular structure is configured as an insert to be releasably accommodated within a socket defined by said one of said first and second members.

24. A method for connecting a railroad car hatch cover for pivotal rotation about a fixed axis to brackets having aligned openings for receiving a pivot pin defining said pivot axis, said method comprising the steps of:

providing a hinge structure configured toward one end with a generally planar portion for facilitating attachment of said hinge structure to said hatch cover, with said planar portion defining a reference plane;

providing a plurality of adapters, each adapter being located toward a second end of said hinge structure, and wherein each adapter includes multiple openings arranged in generally parallel relationship relative to each other, with the openings in the adapters being disposed at differing distances from the reference plane defined by said hinge structure, and wherein the spacing between a majority of said openings in one adapter differing from the spacing between the majority of said openings in another adapter; and

selecting that adapter having an opening disposed so as to approximate a distance measurable between the pivot axis defined by said aligned openings on said brackets and the reference plane defined by said hinge structure.

25. The method according to Claim 24, wherein the openings in said plurality of adapters each differ in size relative to each other.

26. The method according to Claim 24, wherein each adapter is configured as an insert which is accommodated within a socket defined toward the second end of said hinge structure.